
Juncus anthelatus (Juncaceae, *Juncus* subg. *Poiophylli*), a New Status for a North American Taxon

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ABSTRACT. The taxon long known as *Juncus tenuis* Willdenow var. *anthelatus* Wiegand differs from *J. tenuis* in morphology (it is more robust than *J. tenuis*, with a more diffuse inflorescence and slightly smaller capsules), habitat, flowering time, and isozyme profile, and should be treated as a distinct species, *Juncus anthelatus* (Wiegand) R. E. Brooks, stat. nov.

Studies in *Juncus* subg. *Poiophylli* Buchenau in eastern North America (Brooks, 1989; Brooks & Clemants, in press) revealed that the entity formerly known as *Juncus tenuis* Willdenow var. *anthelatus* Wiegand is genetically distinct from *J. tenuis*, and should be considered a distinct species, *Juncus anthelatus*.

***Juncus* (subg. *Poiophylli*) *anthelatus* (Wiegand) R. E. Brooks, stat. nov.** Basionym: *Juncus tenuis* Willdenow var. *anthelatus* Wiegand, Bull. Torrey Bot. Club 27: 523–524. 1900. *Juncus macer* Gray var. *anthelatus* (Wiegand) Fernald, J. Bot. 68: 367. 1930. TYPE: not designated.

Juncus macer Gray f. *discretiflorus* F. J. Hermann, Rhodora 40: 82. 1938. *Juncus tenuis* Willdenow f. *discretiflorus* (F. J. Hermann) Fernald, Rhodora 47: 123. 1945. TYPE: U.S.A. Indiana: Harrison County, 13 July 1935, Deam 56381 (holotype, GH; isotype, IND).

Caespitose perennial herb from a branching rhizome. Culms erect, to (3–)7–9 dm tall. Cataphylls 1–2 per culm. Leaves basal, 2–3(–5) per culm; auricles 2–3.5 mm long, acutish, membranous; blades flat, (10–)20–30 cm × 0.5–2.3 mm. Inflorescences 10–100-flowered, diffuse, internodes of monochasia greater than 6 mm; primary bract usually exceeding inflorescence. Flowers: pedicels 0.1–0.3(–3) mm; bracteoles 2; tepals green, lanceolate, 3.2–4.5 × 0.7–1 mm, inner and outer series subequal, in fruit proximal part enfolding the capsule, apex erect; stamens 6, filaments 0.8–1.1 mm, anthers 0.3–0.7 mm; style ca. 0.2 mm. Capsules tan, 1-locular,

widely ellipsoid to obovoid, 2–3.2 × 1.1–1.6 mm. Seeds tan, ellipsoid, 0.33–0.55 mm, untailed. Chromosome number: 2n = 80.

Flowering and fruiting spring. Exposed or partially shaded sites in moist or seasonally wet, sandy or clay soils. Widespread in the eastern United States (Alabama, Arkansas, Connecticut, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Michigan, Minnesota, Mississippi, Missouri, New Hampshire, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, Tennessee, Virginia, Vermont, Wisconsin).

Representative specimens examined. U.S.A. **Arkansas:** Logan Co., 8 Apr. 1985, Teale s.n. (KANU). **Georgia:** Pike Co., 7 Aug. 1985, Brooks 17593 & Kuhn (KANU). **Illinois:** Clark Co., 22 Aug. 1986, Brooks 18547 & Kuhn (KANU). **Kansas:** Leavenworth Co., 7 June 1985, Brooks 17473a & Kuhn (KANU). **Maine:** Penobscot Co., 6 Oct. 1932, Ogden 599 (MAINE). **Massachusetts:** Hampshire Co., 28 Aug. 1976, Ahles 82384 (VT). **Mississippi:** Hinds Co., 8 Aug. 1985, Brooks 17627 & Kuhn (KANU). **Missouri:** Camden Co., 26 May 1985, Brooks 18135 & Kuhn (KANU). **Ohio:** Lucas Co., 15 Oct. 1979, Stuckey 10005 (OS). **Pennsylvania:** Adams Co., 8 Aug. 1986, Brooks 18390 (KANU). **Tennessee:** Knox Co., Kearney, Jr. s.n. (OS). **West Virginia:** Fayette Co., 17 Aug. 1985, Brooks 17962 & Kuhn (KANU).

Juncus anthelatus tends to be more robust than *J. tenuis*, with a more diffuse inflorescence and slightly smaller capsules, and it often grows in wetter habitats than *J. tenuis*, though the two species are sometimes found growing in the same area. Although the two species can be difficult to distinguish morphologically, *J. anthelatus* flowers one to two weeks earlier than nearby populations of *J. tenuis*, both in the field and in the greenhouse, and the two species show consistent isozyme differences; *J. anthelatus* has a distinctive PGI-1 profile, which does not vary within or between populations across the range of the species (Brooks, 1989). Morphologically, the two species are best distinguished as follows:

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- 1a. Capsules 2–3.2 mm long, less than $\frac{3}{4}$ as long as tepals, borne widely spaced along the usually diffuse branches of the inflorescence; culms (3–)7–9 dm tall *Juncus antheratus*
- 1b. Capsules (3.3–)3.8–4.7 mm long, $\frac{3}{4}$ or more as long as tepals, congested or the branch internodes about as long as the tepals; culms 1.5–5 dm tall *Juncus tenuis*

Literature Cited

- Brooks, R. E. 1989. A revision of *Juncus* subgenus *Poio-phylli* (Juncaceae) in the eastern United States. Univ. Microfilms International, Ann Arbor, Michigan.
- & S. E. Clemants (In press). *Juncus*. In: Flora of North America Editorial Committee, Flora of North America, vol. 22. Oxford Univ. Press, New York.